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DRIED SKIM MILK AND HOW TO USE IT

At the usual city prices, dried skim milk is the cheapest form of milk you can buy. It has practically the same food values as fresh skim milk, and that means the food values of whole milk, except the fat and vitamin A. It costs less than fresh skim milk, and is a cheap source of milk proteins, calcium, and phosphorus. It costs less than whole milk whether fresh, evaporated, or condensed. And you can add the milk fat and the vitamin A to your diet by using a little more butter when you use dried skim milk, and still the cost is less than whole milk in any form.

So dried skim milk is important to the housewife who is trying to keep the family food costs down; it is important to the school lunch director who is planning for undernourished children; or to anybody who is responsible for emergency food supplies or has to meet occasions where cost and storage or carrying space for food are a problem. When obtained at 10 cents a pound, for example, dried skim milk provides a fluid skim milk at 2.1 cents a quart. If you can get dried skim milk at 6 cents a pound, and butter at 32 cents a pound, you have the equivalent of fresh whole milk at 4-1/2 cents a quart. Even if dried skim milk costs 16 cents a pound and butter 50 cents a pound, you can get the equivalent of a quart of fresh whole milk for less than 8-1/2 cents. One quart of fresh whole milk equals 3-1/2 ounces of dried skim milk plus 1-1/2 ounces of butter.

But dried skim milk is a semi-perishable product. If exposed to the air it gradually absorbs moisture and the flavor changes. For this reason, and because of the cost of a satisfactory container, dried skim milk has not thus far been sold at retail stores. It is used in great quantities by bakers and ice cream makers, however, and small quantities can often be bought from such establishments, at little more than wholesale prices. For school lunches, community centers, and relief purposes, it may well be purchased in wholesale quantities for redistribution in small packages. It should be kept in a tightly covered can in a cool place, preferably a refrigerator.

Directions for Mixing

Dried skim milk can be made into fluid milk simply by mixing with water - 1/4 cup of the powder for each cup of water, or 1 cup of the powder for each quart of water. To increase the milk values, increase the proportion of dried skim milk to water. Measure the water into a bowl, sprinkle the powder over the surface a little at a time, beating with an egg whip, a Dover beater, or a fork. Use either cold or warm water. Do not use boiling water. It is likely to make the powder lump.

You can use dried skim milk as it comes, if you are making bread, for instance, or any other flour mixture. Sift the milk powder with the other dry ingredients and add butter if you can, to get the food value of whole milk. For soups and chowders, gravies and sauces, make the dried skim milk into fluid milk by mixing with water, as directed above.

RECIPES WITH DRIED SKIM MILK

Cocoa

5 tablespoons cocoa
5 tablespoons sugar
Salt

5 cups water
1-1/2 cups dried skim milk

Mix the cocoa, sugar, salt, and water, boil for 10 minutes, and cool. Add the dried skim milk slowly, beating constantly until smooth. Reheat and serve.

Corn Meal Mush

1 quart milk made of
1 cup dried skim milk
1 quart water

1 cup corn meal
1-1/2 teaspoons salt

Scald the reconstituted milk over a direct flame. Mix the salt with the corn meal and sprinkle very slowly into the hot milk, stirring constantly while it thickens. Place over boiling water and continue cooking 45 minutes or longer.

If the corn meal is to be used for frying, pour while hot into a moistened bread pan and put in a cold place until firm. For frying, cut the mush in slices, sprinkle lightly with flour, and fry slowly until golden brown on both sides. Serve hot with jelly or sirup.

Oatmeal Porridge

3 cups water
3/4 teaspoon salt

1 cup quick-cooking oatmeal
1/2 cup dried skim milk

Bring 2 cups of the water to the boiling point, add the salt and sprinkle the oatmeal into the boiling water. Boil for 5 minutes and stir constantly. Pour in the milk made from the remaining cup of water and the dried milk. Place over boiling water, cover, and cook until thickened.

White Bread Made with Dried Skim Milk

2-3/4 cups hot water
2 cakes compressed yeast
2 tablespoons sugar
4 teaspoons salt
2 tablespoons fat

3 tablespoons butter
1-1/2 cups dried skim
milk (6-1/2 ounces)
9 cups sifted flour

Measure 1/2 cup of the hot water and when lukewarm (100°F.) add to the yeast. To the remaining hot water add the sugar, salt, and fats. When lukewarm, add the softened yeast and the dried skim milk sifted with the flour. Mix to a dough (will be soft and sticky) and knead with the hands in the bowl. Rub a little fat over the top of the dough, and cover. Allow to rise in a warm place (80°F.) for 2-1/2 hours. Cut and mold the dough into loaves, place in greased pans, again rub fat lightly on the tops of the loaves, and cover. Place in a warm place (90° to 95°F.) and let rise until nearly double in bulk (about 45 to 50 minutes). Bake pound loaves for 40 minutes in a hot oven (400 to 425°F.) These quantities of ingredients make 3 pounds of bread.

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Whole-Wheat Bread Made with Dried Skim Milk

2-1/2 cups hot water	1 cup dried skim milk
1 to 2 cakes compressed yeast	7 cups sifted hard whole-wheat
4 tablespoons brown sugar	flour or 7-1/2 cups sifted
1 tablespoon salt	soft whole-wheat flour
3 tablespoons fat	

Measure 1/2 cup of the hot water and when lukewarm (100°F.) add to the yeast. To the remaining hot water add the sugar, salt, and fat. When lukewarm add the softened yeast and the dried skim milk mixed with the flour, and mix until a dough is formed. Knead on a lightly floured board until smooth and elastic, place in a greased bowl, rub a little fat over the top of the dough, and cover. Allow to rise in a warm place (about 80° to 85°F.) until double in bulk. Punch down. Cut and mold the dough into loaves, place in greased pans, again rub fat lightly over the tops of the loaves and cover. Let rise until nearly double in bulk. Bake pound loaves for 50 to 60 minutes in a moderately hot oven (385°F.) for 15 minutes, then lower to 350°F. These quantities of ingredients make 3 pounds of bread.

To increase the skim milk solids in this recipe, increase the above proportions of dried skim milk and of liquid. A satisfactory loaf can be made with 1-3/4 cups of dried skim milk and 3 cups of liquid, or even as much as 2-1/2 cups of dried skim milk and 3-1/4 cups of liquid.

Biscuits

2 cups sifted soft-wheat flour	3 teaspoons baking powder
3 tablespoons dried skim milk	3 tablespoons fat
3/4 teaspoon salt	About 2/3 cup water

Sift the flour, dried skim milk, salt, and baking powder together. Mix the fat into this mixture with a biscuit cutter. Add the water slowly, stirring from the center, until a soft dough is formed. Toss on a lightly floured board, and knead lightly for a few seconds. Roll out the dough, cut into biscuits, and bake for about 15 minutes in a moderately hot oven (375°F.).

Muffins

1 cup corn meal	1-1/2 teaspoons salt
1 cup flour	1 tablespoon sugar
5 tablespoons dried skim milk	1 cup water
3 teaspoons baking powder	3-1/2 tablespoons melted fat

Sift the dry ingredients together, add the water and melted fat. Stir until the ingredients are just moistened. Pour at once into greased muffin tins. Bake at 425°F. for about 20 minutes.

Batter Cakes

1-1/2 cups flour	1 egg, beaten
1/4 cup dried skim milk	1 cup water
3 teaspoons baking powder	1 tablespoon melted fat
1/2 teaspoon salt	

Sift the flour, dried skim milk, baking powder, and salt together. Add the beaten egg, the water, and the melted fat. Beat until thoroughly mixed. Bake on a greased griddle until lightly browned on both sides. Serve at once.

Molasses Cookies

3/4 cup molasses	1/2 cup dried skim milk
1/2 cup butter or other fat	4 teaspoons baking powder
1 egg, beaten	1/2 teaspoon soda
1/2 cup sugar	1/2 teaspoon cinnamon
1/2 cup water	1/2 teaspoon ginger
2-3/4 cups sifted flour	1/2 teaspoon salt

Heat the molasses and fat until the fat is just melted. Add to the mixture of beaten egg, sugar, and milk. Sift together the flour, dried skim milk, baking powder, soda, cinnamon, ginger, and salt, and add to the other mixture. Drop by spoonfuls onto a greased baking sheet, and bake in a moderate oven (350°F.) about 15 minutes. Remove from the pan at once.

Quick Potato Soup

1 quart milk made of	1 cup grated raw potato
1 cup dried skim milk	3 tablespoons fat
1 quart water	1-3/4 teaspoons salt
1 onion, chopped very fine	1/4 teaspoon celery salt

Scald the reconstituted milk, to which the onion has been added, in a double boiler. Add the grated raw potato and the other seasonings. Stir until the mixture thickens, and cook until there is no raw starch taste. If the soup becomes too thick add more milk until it reaches the right consistency.

Cream of Vegetable Soup

2 tablespoons finely chopped rutabaga turnip	2 tablespoons melted fat
2 tablespoons finely chopped carrots	1 tablespoon flour
2 tablespoons finely chopped onion	1 quart milk made of
2 tablespoons finely chopped celery	1 cup dried skim milk
	1 quart water
	1/2 teaspoon salt

Cook the finely chopped vegetables in the fat for 10 minutes, add the flour, and stir until all are well blended. In the meantime, heat the reconstituted milk in a double boiler, add a little of it to the vegetable mixture, stir well, combine with the rest of the milk, add the salt, and cook for 10 minutes. The flavor is improved if the soup is allowed to stand for a short time to blend before serving. Reheat and serve.

Rice and Onion Soup

2 tablespoons broken rice
1/2 teaspoon salt
2 cups water
1 onion
1 onion, chopped very fine

2 cups milk made of
1/2 cup dried skim milk
2 cups water
1/4 cup salt pork, cut in small pieces

Wash the rice and sprinkle slowly into the boiling salted water, add the onion, and cook until the rice is tender. Brown the pork until crisp, remove from the fat. Mix all of these ingredients, except the pork, with the reconstituted milk and heat the mixture. When hot add the crisped salt pork, and serve.

Split Pea Soup

2 cups green split peas
Cold water
1 large onion, sliced
4 tablespoons fat
2 tablespoons flour

2 cups milk, made of
1/2 cup dried skim milk
2 cups water
2 teaspoons salt
Pepper

Pick over the peas, wash well and soak overnight in 1 quart of cold water. In the morning add 1 more quart of water and the onion, cover and simmer for about 1-1/2 hours or until the peas are soft. Press the peas and onion through a fine sieve and save all the liquid. Blend the fat and flour, add the reconstituted milk and boil. Stir until thickened, then continue boiling for 5 minutes. Mix with the pea pulp and liquid, season, and serve hot.

Corn Chowder

1 quart diced raw potatoes
1 pint boiling water
4 tablespoons diced salt pork
1 onion, chopped
2 cups canned corn

2 cups milk made of
1/2 cup dried skim milk
2 cups water
1/2 teaspoon salt
Pepper
2 tablespoons chopped parsley or celery leaves.

Boil the diced potatoes in the pint of boiling water for 10 minutes. Fry the salt pork and onion for about 5 minutes, and add these and the corn to the potatoes. Boil gently until the potatoes are done. Add the reconstituted milk and the salt and pepper, bring the mixture to the boiling point, and add the parsley or celery leaves. Place two or three crackers in a hot soup dish and pour in the chowder.

Fish Chowder

1-1/2 pound fresh cod, haddock, or any other fish	1 onion, chopped
2 cups diced potatoes	2 tablespoons flour
1 cup diced carrots	2 cups milk made of 1/2 cup dried skim milk
1 quart water	2 cups water
1/2 pound salt pork, diced	Salt and pepper

Cut the fish into small pieces and remove the bones and skin. Boil the potatoes and carrots in the water for 15 minutes. Add the fish. Fry the salt pork until crisp, remove from the fat, cook the onion in the fat for a few minutes, add the flour, stir until well blended, and add the reconstituted milk. Add this mixture to the fish and vegetables, then add the salt and pepper. Simmer for 5 minutes, stirring frequently. Add more seasoning if necessary. Place two or three crackers in a hot soup dish and pour in the chowder.

Oatmeal Chowder

2 cups quick cooking oats	2 medium onions, chopped
1 quart boiling water	2 cups shredded carrots
1 quart cold water	Pepper
1 cup dried skim milk	Salt
1/4 pound diced salt pork	

Cook the oats in the quart of boiling water for about 4 minutes, and stir frequently. Add the dried skim milk to the remaining quart of cold water, and beat until blended. Fry the salt pork until crisp, remove the pork, and cook the onions until well browned in the fat. Mix the cooked oats, onions, and carrots and simmer for a few minutes, then add the pork and salt and pepper to taste. Place two or three crackers in a hot soup dish and pour in the chowder.

Creamy Rice Pudding

1 quart milk made of 1 cup dried skim milk	1/3 cup sugar
1 quart cold water	1/2 teaspoon salt
3 tablespoons uncooked rice	1/2 teaspoon nutmeg or cinnamon

Wash the rice, add it and the remaining ingredients to the reconstituted milk, and stir the mixture. Pour into a baking dish and bake 3 to 3 1/2 hours in a slow oven. Stir occasionally while baking.